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(54) Title: A MOULD, A METHOD OF MANUFACTURING THE SAME AS WELL AS ITS USE

(57) Abstract: The present invention to a mould and a method of manufacturing such a mould. The mould comprises a plurality of components with moulding surfaces that together form a moulding cavity. At least a part of the mould components consists of fluoropolymer that is based on a fluorinated-alkyl chain that comprises a polymerisable group at both ends of the chain such as methacrylate, vinyl ether, or epoxide groups.

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 628 614 A (ROEHM GMBH) 14 December 1994 (1994-12-14) abstract page 3-5	1,2,4-9, 11-15, 17,18
Y	US 5 804 674 A (SAKASHITA HIROTOSHI ET AL) 8 September 1998 (1998-09-08) column 2-3 column 8-11	1,2,4-9, 11-15, 17,18
Y	PATENT ABSTRACTS OF JAPAN vol. 018, no. 636 (M-1715), 5 December 1994 (1994-12-05) & JP 06 246792 A (ASAHI GLASS CO LTD), 6 September 1994 (1994-09-06) abstract	1,2,4-9, 11,15, 17,18

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☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 204 126 A (SINGH BRIJ P ET AL) 20 April 1993 (1993-04-20) figure 4 column 2-6	1,2,4-9, 11-15, 17,18
Y	EP 0 591 545 A (DAIKIN IND LTD) 13 April 1994 (1994-04-13) abstract page 3-5	1,2,4-9, 11-15, 17,18
A	PATENT ABSTRACTS OF JAPAN vol. 008, no. 251 (C-252), 16 November 1984 (1984-11-16) & JP 59 129295 A (DAINIPPON INK KAGAKU KOGYO KK), 25 July 1984 (1984-07-25) abstract	1-18

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0628614	A	14-12-1994	DE 4319198 A1 AT 183225 T DE 59408607 D1 DK 628610 T3 DK 628614 T3 EP 0628614 A1 ES 2136681 T3 US RE36294 E	15-12-1994 15-08-1999 16-09-1999 06-12-1999 06-12-1999 14-12-1994 01-12-1999 07-09-1999
US 5804674	A	08-09-1998	JP 8120178 A CN 1169690 A , B WO 9612600 A1	14-05-1996 07-01-1998 02-05-1996
JP 06246792	A	06-09-1994	NONE	
US 5204126	A	20-04-1993	US 5078791 A DE 69131279 D1 DE 69131279 T2 DE 69132921 D1 DE 69132921 T2 EP 0607146 A1 EP 0826748 A2 WO 9307224 A1 US 5219654 A	07-01-1992 01-07-1999 23-09-1999 14-03-2002 25-07-2002 27-07-1994 04-03-1998 15-04-1993 15-06-1993
EP 0591545	A	13-04-1994	DE 69311248 D1 DE 69311248 T2 EP 0591545 A1 WO 9319918 A1 JP 3033192 B2 US 5510407 A	10-07-1997 06-11-1997 13-04-1994 14-10-1993 17-04-2000 23-04-1996
JP 59129295	A	25-07-1984	JP 3008245 B	05-02-1991